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SECRETARY, BOARD OF
OIL, GAS & MINING

BEFORE THE BOARD OF OIL, GAS AND MINING

DEPARTMENT OF NATURAL RESOURCES, STATE OF UTAH

IN THE MATTER OF THE REQUEST)	POST-HEARING MEMORANDUM OF
FOR AGENCY ACTION BY)	CASTLE VALLEY SPECIAL
PETITIONERS NORTH EMERY WATER)	SERVICE DISTRICT
USERS ASSOCIATION,)	
HUNTINGTON-CLEVELAND)	
IRRIGATION COMPANY, AND)	Docket No. 94-027
CASTLE VALLEY SPECIAL)	
SERVICES DISTRICT)	Cause No. ACT/015/025-93B
)	

Petitioner, Castle Valley Special Service District ("CVSSD"), hereby submits the following post-hearing memorandum as directed by the Board of Oil, Gas and Mining ("Board"). This Memorandum addresses the administrative review by this Board of the request for a significant revision to the Permit of Co-op Mining Company ("Co-op") by the Division of Oil, Gas and Mining ("Division").

FACTUAL BACKGROUND

In addition to the facts stated by co-Petitioners, North Emery Water Users Association ("NEWUA") and Huntington-Cleveland Irrigation Company ("Huntington-Cleveland"), which are hereby adopted and incorporated by reference, CVSSD believes the following facts are significant:

1. Co-op has identified no viable replacement sources for Big Bear and Birch Springs.

2. The workings of the Co-op Mine drain up to 500 gallons per minute of high quality ground water from the pre-existing flow pattern to a new one.

3. The Tank Seam has been connected to the lower mining areas of the Co-op Mine through the efforts and operations of Co-op.

CVSSD hereby incorporates all other aspects of the Memorandum filed by co-Petitioners.

I. JURISDICTION AND RELATED ISSUES

CVSSD hereby incorporates the arguments set forth in Co-Petitioners NEWUA and Huntington-Cleveland's Memorandum concerning the ability of the Board to jurisdictionally review all aspects of the Co-op operation. CVSSD is an affected entity pursuant to the Administrative Rules and the Tank Seam is but one portion of the total operation of Co-op. The failure to review the cumulative impacts of revisions to permits or extensions to permits creates risks of a segmented view of the overall actual impacts and a piecemeal review process. Since some of the major water sources of this region are at stake, this cannot be allowed.

In addition, all current federal and state regulations require a permit to contain information of water availability and alternate water sources when the mining operation may proximately result in contamination, diminution or interruption of an underground or surface source of water. The Energy Policy Act of 1992 provides at

Title VII §720(a)(2) that underground coal mining operations will "promptly replace any drinking, domestic or residential water supply from a well or spring in existence prior to the application for a surface coal mining and reclamation permit, which has been affected by contamination, diminution, or interruption resulting from underground coal mining operations."

Not only has Co-op failed to demonstrate its ability to locate alternate water sources or to replace the water sources of Petitioners, it has failed to demonstrate a finding of no material damage to the existing hydrological balance outside the permitted area. The Board must force Co-op to accomplish the legislative and administrative tasks required of it and has the jurisdiction to do so.

II. PRIOR PROCEEDINGS

It is important to note that the prior proceedings of the Division in Informal Hearing Cause No. ACT/015/025 forms the basis for the heightened scrutiny required of Co-op in this proceeding. At ¶23 through 29 of the Order dated May 21, 1991, the Division stated:

23. The proposed permit application to enter and mine an adjacent Federal Coal lease to the north of the existing mine (Lease Extension) is denied.

24. No additional coal mining and reclamation operations at the Bear Canyon Mine beyond those currently approved in the permit will be considered for approval by the Division until the Probable Hydrologic Impact (PHC) analysis has been revised, based on additional drilling and monitoring of groundwater and surface water flow, quantity, and quality. This limitation in terms of mining and reclamation operations includes but is not limited to any mining in coal seams above or below the currently-approved mine workings within the permit area,

as well as any mining outside the current permit area.

25. Any future proposal to mine beyond the existing permit area or in coal seams above and below the current workings will be treated as a request for permit revision, with the opportunity for public comment.

26. The requirements for additional drilling and monitoring of the surface and subsurface hydrology will be determined by the Division. At a minimum, this will include drilling and monitoring 3 wells, located within and adjacent to the current permit area, for the purpose of evaluating the hydrologic gradient and water quality. Drilling of monitoring wells will be the requirement of and at the expense of Co-op Mining Company. The existing monitoring program for Big Bear and Birch Springs will be revised to include water quantity and quality measurements from lock boxes. Data will be provided to the Division and the appropriate water user associations. Such monitoring will be at the expense of Co-op Mining Company and may be conducted by Co-op or by a third party, as agreed upon by the Protestants and Co-op Mining Company, in order to ensure access to the lock boxes at the Big Bear and Birch Springs. [emphasis added]

27. Drainage or pumping of in-mine water to the old mine working north of the Big Bear and Birch Springs will be controlled and monitored as stipulated by the Division, with revisions of that procedure only as directed by the Division and with the prior approval of the Division.

28. The requirements of this Order which are applicable to the present permit are included and made a part of the permit terms at issuance of the renewed permit for the Bear Canyon Mine.

29. Prior to any approval of coal mining and reclamation operations beyond the existing authorized operations, Co-op Mining Company must demonstrate and the Division must find that said operations have been designed to prevent material damage to the hydrologic balance outside of the permit area, in accordance with Utah Code Ann. §40-10-10(2)(c) and Utah Admin. R. 614-300-133.400.

It is apparent from this Order that the Division was concerned about the cumulative effect of further coal operations by Co-op on the water resources of Petitioners. Ongoing data collection was

mandated to ensure their protection, and comprehensive and continuing review of all impacts is therefore necessary. Unfortunately, it has not occurred.

The probable hydrologic consequences ("PHC") and the cumulative hydrologic impact assessment ("CHIA") are designed to function as evolving processes, in which the cumulative effects of mining on hydrologic resources are detailed, explored and explained on an updated and ongoing basis. By purposefully segmenting the Tank Seam from the remainder of their operation, this burden has not been met by Co-op. Thus, further data collection is required before any approval may be made.

III. TECHNICAL SUPPORT FOR CO-OP'S CONCLUSION

The technical support for the conclusion of Co-op that there was no hydrologic impact upon Big Bear and Birch Springs by mining is at best incomplete. All of the conclusions in that regard are based upon their "finding" that the only water that is being encountered by mining is perched water (water hydrologically unconnected to water percolating from the surface or the regional aquifer). Testimony elicited from Richard White, the President of Earthfax Engineering, Inc., on cross-examination demonstrated that this was simply an assumption on their part and they could just as likely be encountering the leading edge of the regional aquifer as perched water.

It is critical to the conclusion of Earthfax that the various members of the Star Point Sandstone be hydrologically distinct and maintain their own static water pressures. When pressed on cross-

examination, Co-op's witnesses admitted that the fractures in the entire area likely as not penetrated all of those members and that there could be migration of water downward to the acknowledged impenetrable layer--the Mancos Shale. Interestingly, the evidence demonstrated that despite the hydrostatic head on each of the members of the Star Point Sandstone alleged to exist by Co-op, the only large springs in the area were the historic waters of Petitioners--Big Bear and Birch Springs. Where these members create outcrops, no significant springs exist. These facts undermine the perched water theory and support the concept of interception of the regional aquifer.

One of the major problems facing Earthfax and Co-op is that they have insufficient evidence upon which to base their conclusion and to sustain their burden of proof. The three drill holes, separated by wide distances and which continuously monitor water from only one member of the Star Point Sandstone is insufficient to justify their conclusion that they are intercepting only perched water. As was admitted by Mr. White of Earthfax, the thickness of the members of the Star Point Sandstone varies greatly over a distance and could thin to nothing in some places. That is a known and documented characteristic of the progressive/regressive depositional sequence that created those sandstone layers.

Essentially, what Earthfax has suggested is that all of the geologic data developed over the past several decades indicating how the regional aquifer in that area functions may be disregarded based upon three widely separated and poorly monitored drill holes.

They have made this suggestion despite the admitted existence of a thorough and complete fracture system in the area and with full knowledge that the thicknesses of the members of the Star Point Sandstone varies greatly. Their conclusion is at best ill supported and likely erroneous and against the best evidence. In any event, the requisite burden of proof has not been met.

IV. EXISTING DEFICIENCIES IN CO-OP'S DOCUMENTS

In addition to the geologic problems demonstrated above, Co-op has further deficiencies in their documents that directly impact Petitioners. First, their required replacement water rights appear to be in the very companies whose sources will be detrimentally impacted by mining. It defies imagination how that could be considered a "replacement" water source. The water users in the area long ago tapped the best available water sources and Co-op's mining operations are proceeding directly upgradient from the best of them. Those same operations have already interfered with water quality and quantity according to Petitioners' testimony. At a minimum, true replacement sources must be discovered, articulated and made available in the event of interference.

Also, the protection zone required of Petitioners by the State of Utah becomes problematic. Only Co-op Mine has the ability to control what occurs upgradient from these water sources due to prior coal lease approval by DOGM. Yet, it is the mining under these leases that creates the problems. Certainly, controls must be placed upon Co-op by DOGM in the course of the permitting process so as to render sacrosanct the protection zone necessary

for these sources. Of course, the applicable laws and regulations require this.

Finally, there is no indication what effect the ultimate closure of this mine will have on these water sources. That entire topic receives short shrift and inadequate analysis in the relevant documents of Co-op. Each of these deficiencies justifies denial in its own right. Together, they mandate denial of Co-op's request.

V. RELIEF REQUESTED

In view of the testimony elicited at the hearing, as well as applicable law and regulations, Petitioner requests Co-op be required, at a minimum, to perform the following tasks prior to additional approval of any mined areas other than those currently permitted:

1. All deficiencies in the PHC and CHIA must be remedied and areas for further studies ascertained, including but not limited to:

- a. a determination of the source and historic flow pattern of water prior to mining. This will require additional tests and a new and comprehensive drilling program;

- b. an identification and acquisition of viable replacement water sources by Co-op;

- c. the creation of an adequate warning system for Petitioners should contamination occur;

2. The requirements of the Energy Policy Act of 1992 and other applicable regulations must be met and the issue of mine closure must be adequately addressed.


3. Petitioners request that the Board halt the procedure by the Division that allowed for a segmented and artificial review of the operations of Co-op Mine in this area. A master planning process should be emplaced and all further expansions or renewals of the mine must be reviewed on a cumulative basis.

4. Conditions must be emplaced on the mining operations of Co-op to adequately meet the requirements of both federal and state law and to ensure the protection of the citizens of the area.

5. All of the above must be accomplished with public involvement and comment.

Respectfully submitted this 19th day of December, 1994.

APPEL & MATTSSON



Jeffrey W. Appel
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CERTIFICATE OF SERVICE

I hereby certify that on this 19th day of December, 1994, I caused a true and correct copy of the foregoing Post-Hearing Memorandum of Castle Valley Special Service District to be mailed, postage pre-paid, to the following:

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